<u>Amendments to the Claims</u>

1. (original) A method for characterizing a digital optical receiver, comprising:

creating an output pulse waveform by convolving a receiver impulse response and an input pulse;

generating an eye diagram by repeatedly overlaying the output pulse waveform every bit period.

2. (original) The method of Claim 1, further comprising:

prior to the creating step, obtaining a bit stream for transmission, thereby generating an input sequence.

3. (original) The method of Claim 2, further comprising:

prior to the obtaining step, estimating a transmitted pulse input waveform for a receiver, thereby generating pulses used to obtain the bit stream.

4. (original) The method of Claim 3, further comprising:

prior to the estimating step, measuring the receiver impulse response from the receiver.

5. (original) The method of Claim 2, wherein the bit stream is obtained as follows:

$$\Sigma_n a_n * P(t-n*T)$$

where P is a pulse shape, T is a pre-determined bit period, and a_n is the input sequence.

6. (original) The method of Claim 1, wherein the output pulse waveform is obtained as follows:

$$\Sigma_n a_n * X(t-n*T+d)$$

where T is a pre-determined bit period, a_n is an input sequence, d is the delay in the receiver, and $X()$ is a function for creating a pulse stream.

7. (original) The method of Claim 1, further comprising:

after the generating step, estimating a worst case bit rate error (BER) and an amount of noise present in the receiver from an amount of eye closure in the eye diagram.

8. (original) A computer-implemented method, comprising:

(a) creating a first output pulse waveform by convolving a first receiver impulse response and a first input pulse;

(b) generating an eye diagram from the first output pulse waveform at a first bit period;

(c) creating a second output pulse waveform by convolving a second receiver impulse response and a second input pulse; and

9. (currently amended) The method of Claim [10] 8, further comprising:

repeating steps (c) and (d) for a subsequent bit period.